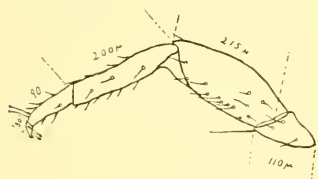


to that of femur, bristly; tarsus a little less than $\frac{1}{2}$ the length of tibia, bristly, tarsal digitules very long, slender, and knobbed; claw medium size and slightly curved, digitules of claw slightly longer than claw, and



Second leg. $\times 100$.

rather stout. See figure. Anal ring and lobes normal. Ovisac, about 5 mm. long, a

fluffy mass of cottony secretion in which the female often entirely buries herself. Eggs pale yellowish brown.

Male unknown.

Habitat, Andover, Mass., Oct. 20, 1896, in the nest of *Lasius claviger* Rog. Coll. Geo. B. King; collected again by Mr. King at Methuen, Mass., Oct. 3, 1897, in nests of *Lasius americanus* Em., "completely concealed in a round ball of cottony down, attached to roots of grass entering the ants' nest, under a stone" (King).

A striking characteristic of this species is that the antennae and femora bear numerous long, slender hairs and that the body also bears numerous long, slender hairs. The relative lengths of the segments of the antennae are much more constant than is usual in ants' nest coccids.

THE LARVAE OF TWO SATURNIANS.

BY HARRISON G. DYAR, WASHINGTON, D. C.

Hemileuca neuwoegeni Hy. Edw. — Almost indistinguishable from the eastern *H. maia* except that the head is black. Upper row of spines (1) with short shaft on joints 5-12, an unpaired dorsal spine on joints 12 and 13; none on the anal plate; four rows of spines on joints 2 to 6 and 11, three on the other segments. Secondary hairs abundant, fine, white. Black, head shining; body thickly covered with small yellow dots, approximate, subconfluent, centered by the secondary hairs. An indicated subdorsal, lateral and broader stigmatal yellow bands, showing as dots in the incisures which are mostly otherwise free from the yellow dots. Spines black, the basal ones on each shaft yellowish. Leg plate black; venter a little reddish.

The yellow dots are less confluent than in *H. maia*, being especially sparse in the incisures, and the stigmatal band is reduced and obsolete centrally on the segments.

(1 blown example, Los Angeles Co., Cal. bred by Koebele. Coll. U. S. Nat. Mus.)

Agapema galbina, Clemens. — Egg. Elliptical, flattened above and below, a little concave; white, shagreened, covered all over with a brown gum, which causes the eggs to adhere to the twig and is applied irregularly, forming darker brown spots and streaks. Size, $2.6 \times 1.9 \times 1.6$ mm. Hatch by a hole in one end; laid in an irregular mass on a twig. (H. K. Morrison, Ariz., May 5th, 1883; Coll. U. S. N. M.)

Stage I. Head rounded, black with white setae; width 1 mm. Body black, without secondary hairs, but with four rows on thorax, three elsewhere of low, scarcely produced warts, each bearing several pale hairs mixed with some dark ones. Hairs stiff, somewhat curved. Warts all paired, no single dorsal one, the pair on the anal plate small and rudimentary. Tubercles of equal size, those on joints 4, 5, and 12 scarcely perceptibly larger; anal plate shining; skin faintly transversely wrinkled; no markings; claspers of abdominal feet pale, but leg-plates dark, shining. Length 5 mm.

Large larva. Head 2.8 mm., rounded, black, with many coarse white setae both primary and secondary: small, not as high as joint 2. Body cylindrical, uniform, feet normal. On thorax four tubercles, on abdomen three on each side of each segment, two only on the ninth abdominal, one on the tenth (anal plate), all paired, no median ones. Tubercle i on joints 4, 5, and 12 slightly prominent, the others rounded and about as long as wide, the lower row flat, indicated only by the hairs. They bear few stiff white hairs with black annulus. Skin rather thickly covered with white secondary hairs, less coarse than the primary ones, directed obliquely backward. Color black, a dorsal band of yellow dots each centered by a secondary hair, absent in the incisures; a white subdorsal line (below i) broken into dashes; a wavy substigmatal white line; warts dark red. Many of the secondary hairs arise from faint whitish dots; leg plates reddish black.

Pupa. Head piece with a central ridge; antenna cases large, strongly segmented; abdomen with three moveable incisures, square, subfurcate at tip with two remote clusters of spines. Whole surface coarsely shagreened, the posterior dorsal edges of the abdominal segments also pitted. Color bronzy brown, the incisures blackish. Length 23 mm., width 9 mm.

(Arizona, Koebele collector, coll. U. S. N. M.)

A NEW LECANIUM ON MAGNOLIA FROM FLORIDA.

I. DESCRIPTIVE; BY T. D. A. COCKERELL,
N. M. AGR. EXP. STA.

Lecanium turgidum, n. sp.—♀ scale 5½ mm. long, 4½ wide, 3¼ high. Dark reddish-brown, very shiny, swollen into irregular pustule-like prominences, with large punctiform depressions between.

♀. Boiled in caustic soda, turns the liquid dark sepia, and gives a slight musky odor. Dermis chitinous, orange-brown, not reticulated, presenting numerous small gland-spots. Marginal spines excessively minute. Mouth parts very small, rostral loop very short. Antennae very small, short and very stout, bristly at tip, segmentation obscure. Legs, very small and stout. Coxa considerably broader than long; femur very broad, and not much longer than broad; tibia and tarsus also extremely broad; tibia a little longer than tarsus, and about one fourth longer than broad. Claw short and stout, much curved. Digitules comparatively short, filiform.

The embryonic larva is remarkable for the large marginal spines, about 17 on each side.

Hab.—On twigs of *Magnolia glauca*. April 22, 1897, at Lake City, Florida. (Quaintance No. 24). This species is unusually interesting, being intermediate between the subgenus *Eulecanium* of the north, and the peculiar *L. parvicorne* of Florida, which itself exhibits characters transitional to the southwestern subgenus *Tuomeycella*. The depressions of *L. turgidum* correspond to the pits of *parvicorne*.

L. magnoliarum Ckll., found by Mr. Ehrhorn on Magnolia at San José, Calif., is quite different, being 8 mm. long, 4½ wide, and 2½ high, with 8-jointed antennae, formula 3 (451) (28) 67 varying to 3 (41) 52 (86) 7.

II. BIOLOGICAL; BY A. L. QUAINANCE,
FLA. AGR. EXP. STA.

Lecanium turgidum is quite common on both *Magnolia glauca* and *M. grandiflora* at Lake City. The young appear during April in considerable numbers. These crawl out on the new wood and leaves of infested branches, frequently almost covering them. Proportionately few of these reach maturity, however, as they are attacked by a number of parasites. The life cycle appears to be about one year.